

April Meetings

Dates & Times

Matinee, 2:30, Wednesday, April 12
Evenings, 8:00 p.m., Wednesday and Thursday, April 12 and 13

Place:

May Treat Morrison Auditorium

Speaker:

Dr. Sylvia A. Earle

Subject:

"Gentle Giants of the Pacific"

"With more uncertainty than I have felt in thousands of dives, I eased into the water with four humpback whales, each one 800 times my size!" So began an incredible adventure for Dr. Sylvia Earle in the waters off Maui in early 1977, an adventure Academy members may now share with the magnificent film **Gentle Giants of the Pacific**. Together with underwater film producer, Al Giddings, and biologists Roger and Katy Payne, Dr. Earle studied the behavior and now famous songs of the humpbacks first hand and up-close, to put it mildly, from their winter retreat in Hawaiian waters to the rich summer feeding grounds of Glacier Bay, Alaska.

The entire expedition, both underwater and topside, was beautifully filmed by Al Giddings and the result was **Gentle Giants of the Pacific**, a featured special on the NBC television network last December. The film will be introduced by Dr. Earle, well-known marine scientist and the Academy's Curator of Phycology. Dr. Earle has participated in numerous scientific expeditions, including the Academy's search for the coelacanth in 1975, and has been both the author and subject of many articles. She is currently working on an article for National Geographic about humpback whales.

As usual, your membership card admits you through the main entrance at Cowell Hall for all three presentations of **Gentle Giants of the Pacific**, and through the Wattis Hall entrance for the matinee program on Wednesday. (The Wattis Hall entrance is closed after 5:00 p.m.) Members will be asked to show their membership card at the auditorium door at the afternoon meeting.

Special Exhibits

April is the last month to see **Liquid Crystals**, a stunning display of photomicrographs by Marcel Vogel and Lawrence Schauffler; and **Unseen Flowers of the Desert**, a very popular photographic exhibit of the microscopic blooms found in the western deserts.

Art of the First Australians, the largest collection of its kind to ever tour this country, will be leaving April 15 for its next stop in Canada.

Opening April 15 in Lower Cowell Hall Gallery is a beautiful new exhibit entitled, **Nature Nearby**. These stunning color photographs of 29 mini-wilderness areas were taken by Luther Linkhart for the East Bay Regional Park District in an effort to make the public aware of the lovely parks available close to home. Each photo shows a quiet place where individuals can surround themselves with the solitude of windy hilltop, a streamside nook, or a quiet meadow. Imagine, all this nature nearby!

Living Arts

Saturday, April 15, at 2:00 p.m.

Beany and Dick Wezelman will present a slide lecture on the textile arts of Sub-Saharan Africa. The Wezelman's have traveled to Africa to collect textiles for the past seven years and they will show various types of woven and dyed cloth including the indigo dyed Adire cloth and the strip woven Kente cloth. Their collection of baskets includes many shapes and designs of coiled, plaited and twined styles.

Saturday, April 22, at 3:00 p.m.

Kebba Fatty and his ensemble will present a lively demonstration and performance of Gambian drumming styles. Kebba comes from a family of drummers of the Mandingo tribe in West Africa.

Peru's Golden Treasures Coming to the Academy!



Nazca Mummy Mask (200-500 A.D.)

There is particular excitement running through the Academy over the announcement of the arrival of **Peru's Golden Treasures**, a collection of over 200 pre-Columbian gold works of art set to open here June 15. This stunning exhibition, on loan from the Museo Oro del Peru in Lima, made its American debut at the American Museum of Natural History in New York last fall, and is currently on display at the Field Museum in Chicago. San Francisco will be the **only** west coast stop on its brief U.S. tour.

The exhibition spans 2000 years and five ancient Peruvian cultures, beginning with the recently discovered Vicus region and ending with the fabled Incas. Mummy masks, drinking vessels, shawlpins, ear and body ornaments, and an incredible pair of golden burial gloves from the Chimu culture (circa 1000-1470 AD), are just a few of the highlights of this rich display.

Members of the California Academy of Sciences will, of course, be admitted free of charge to **Peru's Golden Treasures**. In addition there will be a special "Members' Express Door" so you can avoid the long waiting lines which are anticipated. A beautifully illustrated color catalogue will be available for purchase during the exhibition.

Morrison Planetarium Laserium

April 23 is the last day for **The Loneliness Factor**, Morrison Planetarium's intriguing sky show about the possibilities of life in other worlds than our own. **The Loneliness Factor** is shown Monday through Friday at 2:00 p.m., and on weekends at 12:30, 2:00 and 3:30. Evening shows are presented on Wednesdays and Thursdays at 7:30 p.m.

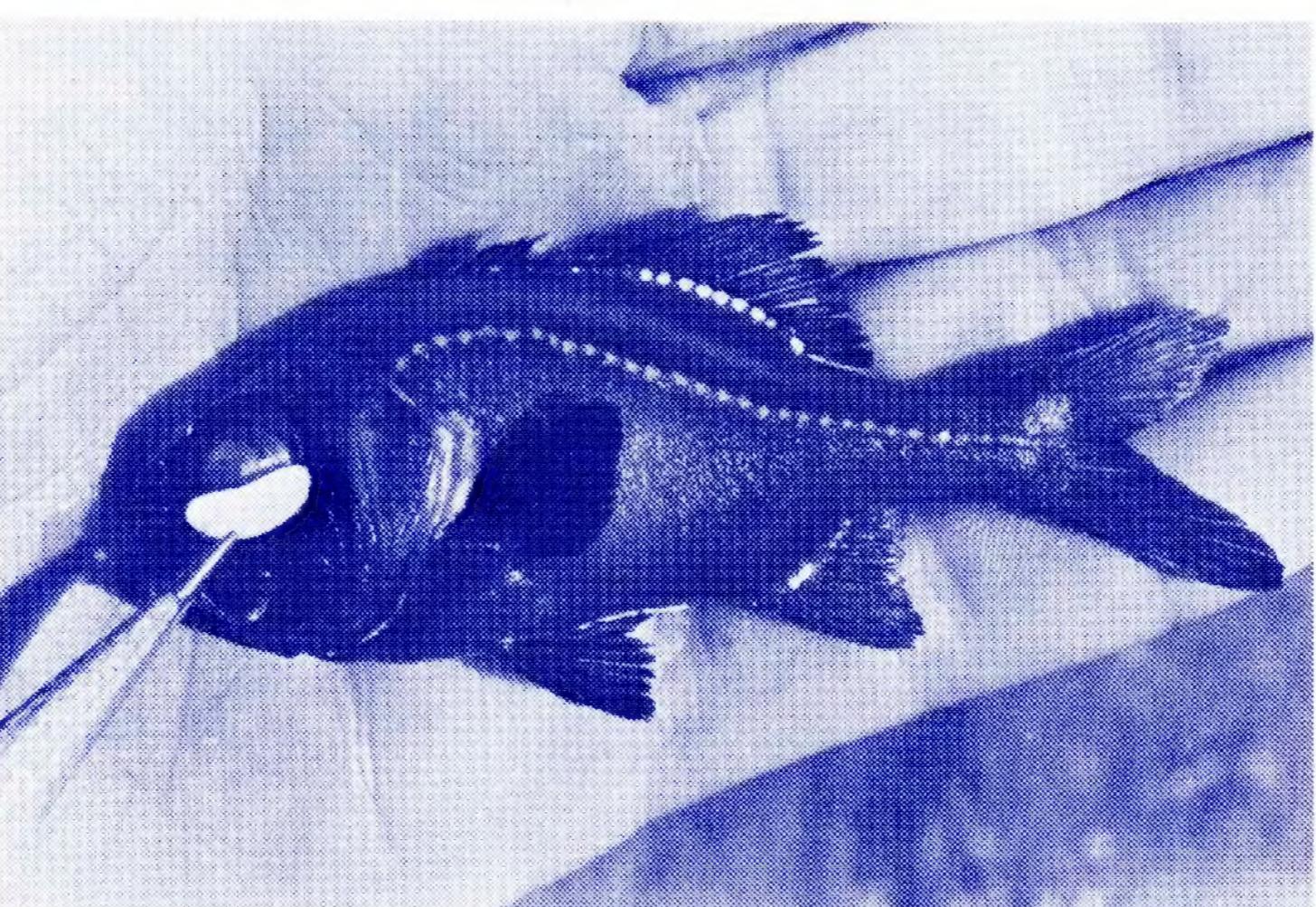
In addition to the regular sky show, the Morrison Planetarium is pleased to offer **Exploring The Skies of the Season** each Saturday and Sunday morning at 11:00 a.m. It is an enjoyable guided tour of the current night sky over San Francisco from stars and constellations to the moon, planets and any unusual astronomical current events. Don't miss it!

Laserium I and **II** continue to play to capacity crowds in the Morrison Planetarium each Friday, Saturday and Sunday evenings. If you have not yet experienced this cosmic laser light concert you are missing a very enjoyable evening. Call 752-4264 for the current Laserium schedule. (Members are reminded that this is **not** a regular planetarium show, **nor** are your planetarium passes usable for this attraction.)

Special Lecture

Dr. Peter Bancroft, author of an outstanding book entitled, **The World's Finest Minerals** will give a special lecture on Tuesday, April 18 at 8:00 p.m. in Morrison Auditorium on **The Gem Treasures of the San Diego Back Country**. Dr. Bancroft is an outstanding mineral collector and is well known among mineral enthusiasts for his award winning collection. His lecture on the rich gem and mineral deposits found in our own state is illustrated with beautiful slides. This special lecture is free of charge to Academy members and their guests.

Inside the Academy



K. alfredi, "The Forgotten Flashlight Fish"

Dr. John McCosker, Director of the Steinhart Aquarium, returned in late February from a highly successful expedition to Grand Cayman Island in the Caribbean with an extraordinary addition to the aquarium's growing collection of rare fishes.

Kryptophanaron alfredi, now called the "Forgotten Flashlight Fish," was first discovered off the coast of Jamaica in 1907. This single specimen was subsequently lost and it was not until January, 1978, 70 years later, that six specimens were collected by an ichthyologist from Philadelphia and preserved in formaldehyde, thereby confirming their existence in the western Atlantic. When Dr. McCosker was notified he hurriedly organized a team of scientists from Scripps Institution of Oceanography and UCLA and between February 12 through 18, the hunt was on.

K. alfredi is a small and secretive fish, five to six inches in length, and has only been seen by midnight divers. It possesses a unique adaptation of two light organs, one beneath each eye, which are filled with billions of light-emitting bacteria. These lights, reminiscent of car headlights, glow 15 to 20 times brighter than anything in the water and can be seen by divers at night as far away as 50 feet. To counter this visible vulnerability, the fish has a blinking device to turn its lights on and off at will. It is believed the lights are used to find and possibly attract food, for communication with other *K. alfredi* and for self defense by confusing predators.

K. alfredi appear to be the primitive "missing link" to a species of flashlight fish which have been on display at Steinhart for the past three years, the *Photoblepharon palpebratus*, which Dr. McCosker collected in the Indian Ocean on his well publicized search for the coelacanth. The "Forgotten Flashlight Fish" are on display in a pitch black tank, #104, which replicates its natural habitat of jet black waters 500 to 600 feet down. All you can see is what another fish sees at that depth . . . brilliant green blinking flashlights and darkness.

Help! Volunteer typists are desperately needed in the Departments of Invertebrate Zoology and Entomology, as well as several other offices, and the search is on for Information Desk volunteers who would be available this summer. If you have a few hours a week to spare and would be interested in working at the Academy, please call Frances Reed in the Development Office at 221-5100, Ext. 237. If you are saying to yourself, "I'd love to help, but I can't type", call us anyway; accuracy is far more important than speed.

Education and Travel Notes

Visible Universe

April 4-May 2 (5 Tuesdays)
7:30-9:30

Join us as we view the constellations and planets of the various seasons as seen from San Francisco and other latitudes on Earth. During the course we will also learn how to use a star finder to identify the seasonal planets and stars. The yearly motions of the moon, tides, the sun and the planets will complete our view of the visible universe. Taught by Michael Bennett, lecturer for the Morrison Planetarium. \$20 for individuals, \$30 for families; non-members add \$5.

Farallon Islands Symposium

Saturday, April 15
9:30 a.m.-4:30 p.m.

Those intriguing outcropping of rock outside the Golden Gate have been the subject of much history and scientific research. Join us for this one-day symposium covering the ecology and natural history of the islands, as well as their geology and bird and mammal residents.

(Note: This is not a trip to the Farallon Islands, but a fascinating symposium conducted in the comfort of Morrison Auditorium.) \$12 per person.

Tidepooling

April 25-26

The Academy's Invertebrate Zoology Department staff will conduct a two-day field course in intertidal life at the marine station in Dillon Beach. The rocky intertidal, sandy beach and mud flats will be thoroughly investigated. Dorm space and meals will be provided from Monday evening after dinner through Wednesday lunch. No transportation is provided. \$50 per person, members only.

Gold Country

April 29-30

California has gold in its foothills because of the complications of the two major rock sequences found there. We will spend Saturday and Sunday examining all this geology and its historical significance for California. During our visit we will see the Marshall Gold Discovery Museum, pan for gold, tour limestone caverns and hunt for fossils and minerals. We will also ride one of the Sierra Railroad steam trains out of Jamestown. Overnight will be in Sonora. \$65 per person (\$7 single supplement) includes charter bus transportation, train ride, overnight in the motel, entrance fees and one box lunch. Members only.

Southwest Pueblo Country

July 28 to August 6

Follow anthropologist Dr. Dorothy Washburn through the Indian Lands of the Great Southwest. This tour, first of a series of trips planned to study the cultures of the Southwest Indians, will concentrate on the Indians of New Mexico and Southern Colorado (See the back cover of **Pacific Discovery** for details.)

In conjunction with this very special travel opportunity the Academy is offering a day-long symposium:

Indians of the Southwest

Saturday, May 13
10 a.m. to 4 p.m.

The art and culture of the Indians of the Southwest, today and yesterday, is the focus of this one-day symposium designed to prepare Academy members for the Southwest Pueblo Country tour this summer. (It would also be of great interest to many armchair travelers as well!) The cost is \$10 for members and \$15 for non-members; it is free to trip participants.

Four major Academy adventures have been planned for 1978. Details of each of the following can be found on the back cover of **Pacific Discovery Magazine** and additional information may be obtained by calling the Academy's Travel Office.

Alaska

July 7-21

Follow Dr. and Mrs. Robert T. Orr for the second Academy-sponsored trip to our wilderness state. You will have a close-up view of glaciers as they "calve, pass floating icebergs in the water of the spectacular Glacier Bay and see countless seabirds and wildflowers on your walks in the Monument area. Then its north to Fairbanks, on to Mt. McKinley Park, Camp Denali, Anchorage and the Katmai Peninsula. For those of you with more time, join the Orr's for an optional extension of two days to Nome and Kotzbu before returning home.

Islands of the South Pacific

August 5-30

Dr. and Mrs. George Lindsay take the helm for this exciting Polynesian adventure! First stop is the little-known island of Huahine in the Society group for a look at the restoration of the "maraes," or temples, by the members of the Bishop Museum Project, then on to the peaceful isle of Bora Bora to soak up the warm sun and atmosphere of this tropical paradise. Other stops include New Caledonia, the New Hebrides, the Solomons and finally to Papua New Guinea for two unique experiences; a visit to a wildlife sanctuary deep in the heart of the jungle, and a riverboat ride on the Sepik River with calls at small native villages rich

in primitive art and culture. There is an optional return via Fiji and a 3-day cruise among the beautiful Yasawa Islands offered.

The African Expedition

September 26-October 25

This extraordinary safari and tour to Kenya, East Africa and the Seychelle Islands in the Indian Ocean will be led by Dr. and Mrs. Robert T. Orr. Once again, details are on the back cover of **Pacific Discovery** and a full itinerary is available through the Travel Office at the Academy.

Angel Falls, Trinidad, Tobago and Surinam

October 20-November 5

Sixteen adventurous souls are invited on this unusual trip led by Dr. Edward Ross to the rain-forested area of Angel Falls and interior nature preserves of Surinam. A unique stop will be made at the caves in Trinidad frequented by the Oilbirds, the subject of a National Geographic article by Dr. Ross.

Call 221-5100 and ask for the Travel Office for information on any of these remarkable trips, each planned with our Academy members in mind.

New Members of the Academy

Regular Members

Mr. Fred Abington
Mr. & Mrs. John W. Adams
Mr. & Mrs. David Angiulo
Dr. Dennis Arndt
Miss Dolores C. Arnold
Mr. George Artemoff
Mr. & Mrs. Raymond N. Baker
Mr. Philip L. Ballard
Mr. Alan Baracco
Mr. & Mrs. John B. Barsotti
Mr. Arthur E. Bayce
Mr. & Mrs. Robert V. Basso
The Beigel Family
Miss Susan A. Bennett
Mr. Allan Bernstein
Mr. & Mrs. D. Bertolucci
Janet & Douglas Bias
Mr. Gail E. Bingham
Mr. Richard Bogue
Mr. & Mrs. Frank Boileau
Mr. E. Bollock
Miss Claudia Breault
Mr. George F. Brennan
Mr. Damon Brown
Miss Mary-Helen Burnison
Mr. Sanford Byers
Mr. Robert E. Campbell
Mr. & Mrs. Daniel Casey
Pat Cason
Mr. Thomas O. Caylor
Mr. William M. Chamberlain
Mr. & Mrs. Kaan Chin
Mr. Stephen Chumo
Mr. & Mrs. R. & J. Clayton
Mr. Stephen D. Coffman
Mr. William C. Collier
Mr. D. M. Cook
Mr. Roy A. Cordy
Dr. Patrick J. Costello
Mr. Robert L. Cox
Miss Gertrude Creswell
Miss Kathryn J. Crooks
Miss Mary Louise Dale
Bob & Carol Davis
Dr. Frederick Davis
Mr. William DeGroot
Mr. & Mrs. Robert Deisher
Mr. Michael Dellamonica
Miss Frances Desmond
Mrs. Nellie Dopheide
Mr. & Mrs. Michael W. Dressel
Mr. Peter M. Duffy
Miss Anita I. Eakin
Mrs. Marriner Eccles
Dr. Eldon E. Ellis
Mr. Jackson Alma Erro
Mr. Randy Eustice
Mr. & Mrs. John Faggi
Mrs. Nancy J. Feigenbaum
Mr. Ben Finney
Ms. Janet Fohner
Dr. Edward A. Free
Marjory L. Galvin
Dr. Ronald L. Gammon
Ms. Maxine Gardner
Mr. Robert E. Garrison
Mr. Robert J. Gelinas
Mr. & Mrs. C. E. Gillis
Dr. Steve Gold
Mr. Manuel J. Gordon
Dr. Robert G. Grauer
Ms. Patricia Greene
Ms. Katherine S. Hack
Mrs. Winifred Hammond
Mr. & Mrs. Kenneth Harris
Mr. David B. Haumesser
Mr. John E. Hearst
Miss Phyllis Heikkila

New Members of the Academy

Mr. Ray Heiskell
Mr. Ron Heiskell
Mr. Russ Henry
Mr. & Mrs. Al Henselyn
Dr. Ian Hentall
Miss Tracy Hicks
Mr. Max K. Hoberg
Mr. & Mrs. John E. Hoffman
Dr. Mardi Horowitz
The Hunts
Mr. & Mrs. Russell R. Husted
Mr. Paul Joannides
Mr. & Mrs. Huntley Johnson
Dr. Paul D. Kaufman
Mr. Bob Keim
Miss Theresa A. Kennedy
Mr. Gabe Kingsley
Mr. & Mrs. Grant Koch
Dr. Harold W. Korol
Dr. Ron Last
Mr. & Mrs. Whitney E. Lawrence
Mr. Howard Leong
Jose & Kate Leiva
Mr. John L. Lindgren
Mr. Bob Livermore
Mr. & Mrs. Howard E. Lochner
Miss Caren Lorenzato
Dr. Baldwin Louie
Mr. Richard T. Liubrand
Mr. Minh K. Luu
Dr. B. J. Lyons
Dr. Ken Lyons
Mr. Donald L. Mack
Dr. Richard Malan
Mr. & Mrs. W. C. Mallory
Mr. Tony Marques
Mr. Frank Marshall
Mr. & Mrs. Ralph Melin
The Carleton Meyer Family
Mr. & Mrs. Baron Miller
Dr. Gary N. Miller
Mrs. Gus S. Miller
Miss Roberta S. Miller
Miss Susan A. Mincks
Mr. Raul Moralez
Mr. Jared Y. Myers
Mr. Euwell W. McCants
John E. McCarthy Family
Mr. Mitchel McClaran
Mr. N. J. McClintock
Mr. Gary McDonald
Ms. Kathleen McEntee
Mr. Malcolm McVickar
K. & D. McQuesten
Miss Elsbeth Nagel
Dr. Aan T. Nakanishi
Mr. William Neff
Miss Judy Neilson
Curt & Lois Nelson
Mrs. Sandra Nelson
Mr. Neil A. Nevesny
Mr. Henry Ng
Mr. & Mrs. Ernest H. Norback
Dr. Iraj M. Nuban
Mrs. A. K. Oppenheim
Ms. June A. Osterberg
Mr. Douglas Owen
Mr. John C. Owicki
Mrs. Kathleen Pabst
Mr. Perry Parkhurst
Mr. Aaron Partridge
Mr. James Perry
Dr. Rocco G. Pisano
Mr. Al Pollack
Mr. Alan M. Probert
Mr. Stephen Rae
Mr. Robert Reese, Jr.
Ms. Erna G. Renoud
Mr. Donald E. Rice
Mr. Donald B. Robertson
Dr. Norman R. Rogers
Mr. Richard M. Rogers
Mr. Bruce Rohn
Dr. Irving B. Sacks
Dr. James I. Salach, Jr.
Mr. Gene Samas
Mr. Robert T. Sato
Mr. Stephen M. Savage

Mr. G. P. Scales
Master Francis A. Scarpulla
Mr. & Mrs. Frederick J. Scarpulla
Mr. & Mrs. Ronald J. Scarpulla
Mr. Russell Neil Schaadt
Mr. & Mrs. Don Schaefer
Mrs. Susan Schatz
Alice & Don Schenker
Dr. F. J. Schnugg
Mr. Kurt F. Schoenberg
Mr. John A. Schultz
Mr. Peter D. Schulz
Mr. David R. Schumaker
Mr. & Mrs. C. Sharp
Mr. Allan D. Shepherd
Dr. & Mrs. Stephen J. Shiman
Edward, Dale & Ellen Sickle
Mr. Donald Siemens
Miss Ruth Ann Simonson
Mr. William J. Sims
Swami Sivalingam
Mr. Harry B. Skinner
Miss Sandra Slichter
Mrs. Alice K. Smith
Mrs. Helen Rands Smith
Mr. Lewis M. Smith
Ms. Marion Smith
Mr. Anthony Sotak
Mr. Victor Spiler
Mrs. H. S. Stark
Dr. Dale I. Steele
Nathanial & Julia Sterling
Mr. Donald J. Tully
Mr. James P. Turk
Miss Helen Van Deinse
Mr. Robert Van Scoy
Dr. Thomas R. Vaughan
Mr. & Mrs. E. Veber
Ms. Susan Vigano
Dr. James F. Vincek
Dr. Ruperto R. Visaya, Jr. &
Dr. Olga Ochoa-Visaya
Miss Nancy Vitavec
Miss Mary E. Wahl
Mr. Douglas C. Wallace
Miss Anne E. Waste
Mr. William H. Waste
Ms. Harriet H. Waters
Dr. Barrett Weber
Mr. Juian Weidler
Mr. John F. Weigen
Dr. Paul Erick Weiss
Mr. James T. Welch
Mr. & Mrs. Richard M. West
Mr. George A. Wheeldon
Mr. & Mrs. John T. Wheeler
Ms. Lee White
Mr. Philip J. White
Mr. P. L. Wilkinson
Miss Sharon J. Williams
Dr. Don D. Wilson
Mr. Greg Wilson
Ms. Mary Wilson
Dr. Donald Yent
Ms. Beth Youngdoff & Noah
Dr. Andre L. Zanger
Mr. Thomas J. Zavortink

Contributing Members

Mr. & Mrs. Lewis Buter
Mr. Jon F. Claerbout
Mr. Henry B. Clark, Jr.
Dr. Clarence N. Copeland
Mr. & Mrs. Donald C. Deckebach
Dr. Alice H. Dodge
Dr. & Mrs. John P. Hunter
Mr. C. E. Mullin
Dr. R. S. McClintock
Mr. & Mrs. Roger D. Quick
Mr. Neil Reid
Mr. Thomas A. Rohde
Dr. Lawrence H. Tew
Mr. John Williams

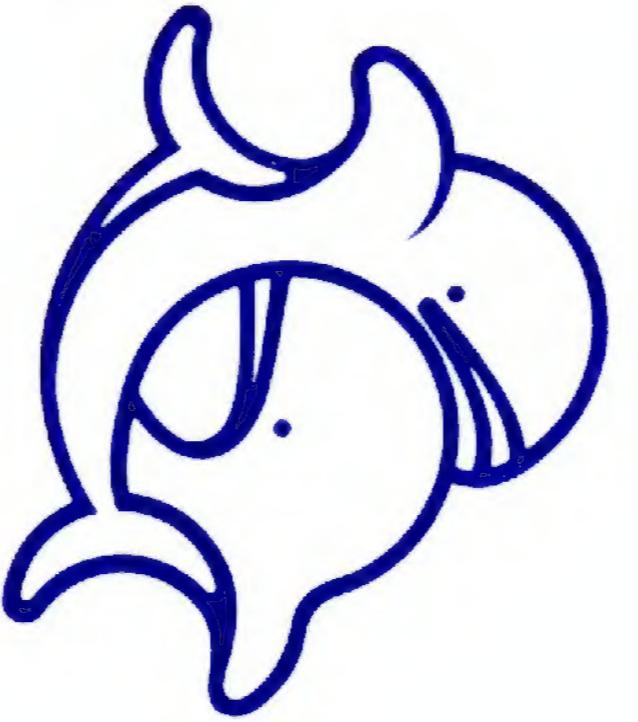
Life Members

Mr. Richard Dresser
Dr. Alan D. Matzger

Printed on 100% Recycled Paper

GRAPHIC
ARTS
OF
MAKING, INC.

Open every day of the year
No. 460



California Academy of Sciences Newsletter April, 1978

California Academy of Sciences
Golden Gate Park
San Francisco, California 94118
(415) 221-5100 221-4214

Non-Profit Organization
U.S. Postage Paid
Permit No. 7544
San Francisco, California

